REMARKS/ARGUMENTS

Claims 1-26 will now be pending in this application upon entry of the amendments. Claim 24 has been amended, and claims 25-26 have been added. The amendments find full support in the original specification, claims, and drawings. No new matter has been added. In view of the above amendments and remarks that follow, reexamination, reconsideration, and an early indication of allowance of claims 1-26 are respectfully requested.

Claim 24 has been amended to correctly indicate that the claims on which claim 24 is based are method claims. The amendment was made for reasons unrelated to patentability.

The Examiner rejects claims 10-24 under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (U.S. Patent No. 5,640,400) in view of Kawano et al. (U.S. Patent No. 5,933,605). Applicant respectfully traverses this rejection.

In regards to independent claims 10, 11, 15, and 16, the Examiner contends that Sato discloses a "means for judging, based on contents of the message field, whether or not the information received from one communication bus is . . . information that should be transmitted to the other communication bus."

In Sato's system, a mini manufacturing automation protocol (miniMAP) device connected to one bus uses a miniMAP addressing format to designate as a destination, a mechatronics network (ME-NET) device connected to another bus that receives data frames formatted according to a different frame structure. Specifically, a translation table such as one shown on Table 4 is used to assign a virtual address to each device connected to

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the ME-NET. A miniMAP device may then uniquely identify a ME-NET device for transmitting data by using the virtual address assigned to the ME-NET device.

In rejecting the independent claims, the Examiner particularly relies on Sato's disclosure on column 10, lines 54-67. In it, Sato discusses how a gateway GW11 receives a data frame from a first device and processes it for transmission to a second device. Specifically, Sato discloses that the gateway GW11 receives a data frame and determines whether the received data frame is a ME-NET or miniMAP data frame. The gateway also determines whether or not a destination address DA is a virtual address. Based on this determination, the destination address, source address, and frame format are converted so that the intended destination device may correctly receive the data frame. (See, Col. 11, lines 5-20).

In Sato, it is a data frame's header field, which includes the destination and source addresses, that is examined for making the appropriate conversion of the data frame. Sato fails to teach or suggest that the gateway GW11 makes any judgment "based on contents of said message field" of the data frame as is required by claim 10. (Emphasis added).

As a further distinguishing element, claim 10 recites that the judging performed by the judging means is "whether or not the information received from one communication bus is information that should be transmitted to the other communication bus." The function of Sato's gateway GW11 is to simply relay data from an ME-NET device to a miniMAP device, or vice versa, by making the appropriate conversions in the source

address, destination address, and frame format. (See, Col. 24, lines 4-9). Sato's gateway GW11, however, does not perform the type of judging recited in claim 10.

Claim 10 further recites a "filtering means for transmitting said received information to said other communication bus when said received information is judged by said judging means to be the information that should be transmitted." The Examiner acknowledges that Sato does not disclose the recited filtering means. However, the Examiner relies on Kawano to make up for this deficiency. Specifically, the Examiner relies on the disclosure in column 14, lines 54-65 of Kawano, a portion of which states that "when the contents code attached to the transmission instruction from the user programs is present in the filter table, the transmitting filter processor 408 performs its filtering operation." The contents code "is a code indicative of the type of data to be asked to transmit." (Col. 6, lines 64-66). As shown in Fig. 2, the contents code is included in the header portion of a data frame. (See also, Col. 7, lines 7-15). The filter table simply stores the names of the data groups that are to share data, and the content code to be used to transmit data to each data group. (See, Col. 16, lines 26-49; FIG. 12).

The filtering operation performed by the transmitting filter processor in Kawano is explained in more detail with respect to FIGS. 15A, 15B, and 16. As explained there, when data from a first data group, such as data group DF-1, is desired to be shared with a second data group, such as data group DF-2, the transmitting filter processor retrieves the

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content code for the second data group from the filter table and performs its transmitting operation. "This causes the data 703 of the contents code (DF-1.cc1) to be converted to data 704 of a contents code (DF-2.ccP) through the filtering operation and then passed through the data group DF-2." (Col. 18, lines 14-34). Thus, the filtering operation of the transmitting filter processor is simply a conversion of "only the value of the contents code between the data groups." (Col. 18, lines 28). Kawano's transmitting filter processor does not include a "filtering means for transmitting said received information to said other communication bus when said received information is judged by said judging means to be the information that should be transmitted."

Kawano does not provide the teaching or suggestion of the recited judging means that is missing from Sato. The transmitting filter processor in Kawano simply examines a header field that includes the contents code and the destination and source addresses for converting and transmitting data to a data group. Kawano fails to teach or suggest that the processor makes any judgment "based on contents of said message field" as is recited in claim 10. (Emphasis added).

Furthermore, Kawano's transmitting filter processor does not judge "whether or not the information received from one communication bus is information that should be transmitted to the other communication bus." The processor makes the appropriate conversions in the content code and then proceeds to just transmit the data. Accordingly, Applicant submits that neither Sato nor Kawano, alone or in combination, teach or

suggest all of the elements of claim 10. Claim 10 is thus in condition for allowance.

Independent claim 11, 15, and 16 include limitations that are similar to the limitations in claim 10 which make claim 10 allowable, and are therefore also in condition for allowance.
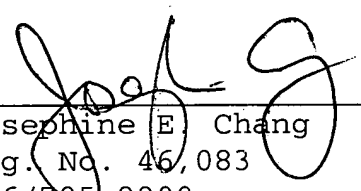
Claims 12-14 and 17-26, of which claims 25-26 are new in this application, are also in condition for allowance because they depend on an allowable base claim, and for the additional limitations that they contain.

In view of the above amendments and remarks, Applicant respectfully requests reconsideration, reexamination, and an early condition of allowance of the now pending claims 10-26.

Respectfully submitted,

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